

In the Claims

1 – 20 (Cancelled)

21. (New) A thrombus filter for placement within a blood vessel lumen defined by a blood vessel wall, comprising:

 a wall engaging portion comprised of a plurality of wall elements including a plurality of wall engaging strands;

 a filtering portion comprised of a plurality of filtering strands;

 a selectively releasable retainer disposed on the filtering strands;

 the filtering portion being fixed to the wall engaging portion;

 each wall engaging strand connected to each other wall engaging strand, either directly or solely through other wall elements; and

 a catheter disposed adjacent the thrombus filter, the catheter being configured to engage the selectively releasable retainer.

22. (New) The filter of claim 21, wherein a plurality of wall elements are attached to at least one other wall element.

23. (New) The filter of claim 21, wherein a plurality of wall elements are arranged to define a plurality of wall engaging cells.

24. (New) The filter of claim 21, wherein the wall elements include a plurality of tubular members having central lumens, a plurality of the tubular member having a portion of at least one wall engaging strand in the central lumen.

25. (New) The filter of claim 24, wherein the tubular members comprise an anchoring portion, each anchoring portion having a plurality of protrusions to anchor the tubular member to the blood vessel wall.

26. (New) The filter of claim 21, wherein the wall elements comprise an anchoring member, each anchoring portion having a plurality of protrusions to anchor the anchoring member to the blood vessel wall.

27. (New) The filter of claim 21, further comprising a shaft disposed within the catheter, the shaft being configured to engage the selectively releasable retainer.

28. (New) The filter of claim 27, wherein the shaft is configured to remove the selectively releasable retainer from the filtering strands.

29. (New) The filter of claim 28, wherein the catheter includes retaining means for maintaining the selectively releasable retainer within the catheter when the retainer is removed from the filtering strands.

30. (New) The filter of claim 24, wherein a portion of two wall engaging strands are in a plurality of the tubular members.

31. (New) A thrombus filter for placement within a blood vessel lumen defined by a blood vessel wall, comprising:

a plurality of wall engaging strands connected together and defining a generally cylindrical wall engaging portion;

a plurality of filtering strands each having a proximal end attached to the wall engaging portion and a distal end;

wherein the filtering strands define a filtering portion that is configured to shift between a first generally conical shape and a second generally cylindrical shape, the filtering portion being biased to be in the second generally cylindrical shape; and

a retainer releasably attached to the distal ends of the filtering strands that holds the filtering portion in the first generally conical shape.

32. (New) The filter of claim 31, wherein the retainer includes a graspable loop.

33. (New) The filter of claim 31, wherein the retainer includes a graspable collar.

34. (New) The filter of claim 31, further comprising a catheter configured to engage the retainer.

35. (New) The filter of claim 34, further comprising a shaft disposed within the catheter, the shaft being configured to engage the retainer.

36. (New) The filter of claim 35, wherein the shaft is configured to remove the retainer from the distal ends of the filtering strands.

37. (New) The filter of claim 36, wherein the catheter includes retaining means for maintaining the retainer within the catheter when the retainer is removed from the distal ends of the filtering strands.

38. (New) A thrombus filter, comprising:
a cylindrical wall engaging region defined by a plurality of connected wall engaging strands;
a filtering region defined by a plurality of filtering strands each having a proximal end attached to the wall engaging portion and a distal end;
wherein the filtering region is configured to shift between a first generally conical shape and a second generally cylindrical shape, the first generally conical shape is defined by the distal ends of the filtering strands converging and being closely associated with one another, the second generally cylindrical shape is defined by the distal ends of the filtering strands diverging and separating from one another;
wherein the filtering region is biased to be in the second generally cylindrical shape;

a retainer releasably attached to the distal ends of the filtering strands that holds the filtering region in the first generally conical shape; and

a catheter configured to engage the retainer, the catheter including retaining means for maintaining the retainer within the catheter when the retainer is removed from the distal ends of the filtering strands.

39. (New) The filter of claim 38, wherein the retainer includes a graspable loop.

40. (New) The filter of claim 38, wherein the retainer includes a graspable collar.

41. (New) The filter of claim 38, further comprising a shaft disposed within the catheter, the shaft being configured to engage the retainer.

42. (New) The filter of claim 41, wherein the shaft is configured to remove the retainer from the distal ends of the filtering strands.

43. (New) A thrombus filter, comprising:
a cylindrical wall engaging region;
a filtering region having a proximal end attached to the wall engaging portion and a distal end;

wherein the filtering region is configured to shift between a first generally conical shape and a second generally cylindrical shape, the first generally conical shape is defined when the distal end of the filtering region is closed, the second generally cylindrical shape is defined when the distal end of the filtering region is open;

wherein the filtering region is biased to be in the second generally cylindrical shape; and

means for controlling the shape of the filtering region releasably attached to the distal end of the filtering region.

44. (New) A thrombus filter, comprising:

a cylindrical wall engaging portion defined by a plurality of connected wall engaging filaments;

a filtering portion defined by a plurality of filtering filaments each having a proximal end attached to the wall engaging portion and a distal end;

wherein the filtering portion is configured to shift between a first generally conical shape and a second generally cylindrical shape;

wherein the filtering portion is biased to be in the second generally cylindrical shape;

a retainer releasably attached to the distal ends of the filtering filaments that holds the filtering portion in the first generally conical shape; and

a catheter configured to engage the retainer, the catheter including retaining means for maintaining the retainer within the catheter when the retainer is removed from the distal ends of the filtering filaments.

Respectfully submitted,

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